

Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

1.-163. (Canceled)

164. (Currently Amended) Apparatus for application to a subject, comprising:

an elongated support element having a length of between about 1.8 cm and about 4 cm, and having a proximal end and a distal end;

one or more electrodes fixed to the support element in a vicinity of the distal end thereof;

a receiver, fixed to the support element in a vicinity of the proximal end thereof; and

a control unit, adapted to be coupled to the receiver, and adapted to:

drive the electrodes to apply an electrical current to tissue of the subject, and

configure the current to have a pulse frequency of between about 10 Hz and about 50 Hz, an amplitude of between about 0.2 V and about 10 V, a pulse width of between about 50 microseconds and about 5 milliseconds, and, in alternation, on periods of between about 1 second and about 2 minutes, and off periods of between about 1 second and about 2 minutes,

wherein the control unit is adapted to be positioned inside an oral cavity of the subject, and

comprising an oral appliance, adapted to be fixed to the control unit, and shaped so as to define a surface that fits closely to a roof of the oral cavity.

165. (Previously Presented) The apparatus according to claim 164, wherein the tissue is selected from the group consisting of: a sphenopalatine ganglion (SPG) of the subject, a greater palatine nerve of the subject, a lesser palatine nerve of the subject, a sphenopalatine nerve of the subject, a communicating branch between a maxillary nerve and an SPG of the subject, an otic ganglion of the subject, an afferent fiber going into the otic ganglion of the subject, an efferent fiber going out of the otic ganglion of the subject,

an infraorbital nerve of the subject, a vidian nerve of the subject, a greater superficial petrosal nerve of the subject, and a lesser deep petrosal nerve of the subject, and wherein the control unit is adapted to drive the electrodes to apply the current to the selected tissue.

166. (Original) The apparatus according to claim 164, wherein the support element has a length of between about 1.8 cm and about 3 cm.

167. (Original) The apparatus according to claim 164, wherein the receiver comprises an electrical contact site, and wherein the control unit is adapted to be coupled to the receiver by being brought into physical contact with the electrical contact site.

168. (Previously Presented) The apparatus according to claim 164, wherein the receiver comprises a transducer, and wherein the control unit comprises a wireless transmitter, which is adapted to couple the control unit to the receiver via wireless communication with the transducer.

169. (Original) The apparatus according to claim 168, wherein the transducer comprises a coil.

170.-172. (Canceled)

173. (Original) The apparatus according to claim 164, wherein the receiver has a volume of less than about 0.8 cm³.

174. (Original) The apparatus according to claim 173, wherein the receiver has a volume of less than about 0.15 cm³.

175. (Original) The apparatus according to claim 164, wherein the control unit is adapted to apply the current having on periods of between about 60 seconds and about 105 seconds, and off periods of between about 30 seconds and 90 seconds.

176. (Original) The apparatus according to claim 175, wherein the control unit is adapted to apply the current having on periods of about 90 seconds, and off periods of about 60 seconds.

177.-288. (Canceled)

289. (Previously Presented) A method comprising:

inserting an elongated support element into a body of a subject, the element having a length of between about 1.8 cm and about 4 cm, and having a distal end;

applying, from a vicinity of the distal end, an electrical current to tissue of the subject; and

configuring the current to have a pulse frequency of between about 10 Hz and about 50 Hz, an amplitude of between about 0.2 V and about 10 V, a pulse width of between about 50 microseconds and about 5 milliseconds, and, in alternation, on periods of between about 1 second and about 2 minutes, and off periods of between about 1 second and about 2 minutes.

290.-333. (Canceled)

334. (Previously Presented) The method according to claim 289, wherein applying the current comprises receiving energy at the support element, and, using the energy, applying the current to the tissue.

335. (Previously Presented) The method according to claim 334, wherein receiving the energy comprises transmitting the energy from inside an oral cavity of the subject, and receiving the transmitted energy.

336. (Previously Presented) The method according to claim 334, wherein receiving the energy comprises receiving the energy from inside an oral cavity of the subject via an electrical contact site of the support element.

337. (Previously Presented) The method according to claim 334, wherein receiving the energy comprises wirelessly receiving the energy.

338. (Previously Presented) The method according to claim 337, wherein wirelessly receiving the energy comprises wirelessly receiving electromagnetic energy.

339. (Previously Presented) The method according to claim 337, wherein wirelessly receiving the energy comprises wirelessly transmitting the energy from outside of a head of the subject, and wirelessly receiving the transmitted energy.

340. (Previously Presented) The method according to claim 337, wherein wirelessly receiving the energy comprises wirelessly transmitting the energy from inside an oral cavity of the subject, and wirelessly receiving the transmitted energy.

341. (Previously Presented) The method according to claim 289, wherein the tissue is selected from the group consisting of: a sphenopalatine ganglion (SPG) of the subject, a greater palatine nerve of the subject, a lesser palatine nerve of the subject, a sphenopalatine nerve of the subject, a communicating branch between a maxillary nerve and an SPG of the subject, an otic ganglion of the subject, an afferent fiber going into the otic ganglion of the subject, an efferent fiber going out of the otic ganglion of the subject, an infraorbital nerve of the subject, a vidian nerve of the subject, a greater superficial petrosal nerve of the subject, and a lesser deep petrosal nerve of the subject, and wherein applying the current comprises applying the current to the selected tissue.

342. (Previously Presented) The method according to claim 341, wherein the tissue includes the SPG, and wherein applying the current comprises applying the current to the SPG.

343. (Previously Presented) The method according to claim 341, wherein the tissue includes the greater palatine nerve, and wherein applying the current comprises applying the current to the greater palatine nerve.

344. (Previously Presented) The method according to claim 289, wherein the support element has a length of between about 1.8 cm and about 3 cm, and wherein inserting the support element comprises inserting the support element having the length of between about 1.8 cm and about 3 cm.

345. (Previously Presented) The method according to claim 289, wherein configuring the current comprises configuring the current to have on periods of between about 60 seconds and about 105 seconds, and off periods of between about 30 seconds and 90 seconds.

346. (Previously Presented) The method according to claim 345, wherein configuring the current comprises configuring the current to have on periods of about 90 seconds, and off periods of about 60 seconds.

347. (Previously Presented) The method according to claim 289, wherein inserting the support element comprises inserting at least a portion of the support element into a greater palatine canal of the subject.

348. (Previously Presented) The method according to claim 347, wherein inserting the at least a portion of the support element into the greater palatine canal comprises inserting the at least a portion of the support element into the greater palatine canal via a roof of an oral cavity of the subject.

349. (Previously Presented) The apparatus according to claim 164, wherein at least a portion of the support element is adapted to be placed in a greater palatine canal of the subject.

350. (Previously Presented) The apparatus according to claim 165, wherein the tissue includes the SPG, and wherein the control unit is adapted to drive the electrodes to apply the current to the SPG.

351. (Previously Presented) The apparatus according to claim 165, wherein the tissue includes the greater palatine nerve, and wherein the control unit is adapted to drive the electrodes to apply the current to the greater palatine nerve.

352. (Previously Presented) The apparatus according to claim 168, wherein the wireless transmitter is adapted to wirelessly couple the control unit to the receiver via wireless electromagnetic communication with the transducer.